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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,914	01/29/2004	Setsu Komiyama	040031	2644

23850 7590 08/10/2005

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WASHINGTON, DC 20006

EXAMINER
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GRIER, LAURA A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/765,914

Applicant(s)

KOMIYAMA ET AL.

Examiner

Laura A. Grier

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art (AAPA) in view of Oinoue et al., U. S. Patent 20020031231.

Regarding claims 1 and 3, AAPA discloses a mixing comprising an equalizer (3), a fader (4), and pan circuit (6). However, AAPA fails to specifically disclose a distance filter.

Regarding a distance filter, Oinoue et al. (herein, Oinoue) discloses an acoustic apparatus comprising a variable attenuator coupled to a LPF, wherein the variable attenuator attenuates the input audio signal, which reads on attenuating an audio signal in an entire audio-frequency band; and the LPF (low pass filter) reads on extracting a high-audio frequency component from the input audio signal level, in a correlated manner – figure 1, references 22/26, and 23/27 – (paragraph 0031-0032 and 0036-0037), and the coupling of the variable attenuator and the LPF reads a distance filter.

Thus, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of AAPA by implementing a variable attenuator coupled to a LPF for the purpose of enabling a listener to perceive or recognize a sound at a

particular location than where the loudspeaker may actually be located to enjoy the acoustic effects of surround or virtual sound.

Regarding claims 2 and 4, AAPA and Oinoue disclose everything claimed as applied above (see claim 1). AAPA further discloses the variable attenuator coupled to each other (cascaded) with the variable attenuator attenuating to a predetermined level, which is operable for change, and a LPF in which the cutoff frequency may be from 2 to 6 kHz, which reads on a the distance filter, therein (figure 1); and further the amount of attenuation by the variable attenuator and the cutoff-frequency is lower when the amount of attenuation is larger, wherein the right channel signal has a gain higher for the high frequency band than that of the low frequency band, which results to a increase in attenuation (paragraph 0034).

Regarding claim 5, AAPA and Oinoue disclose everything claimed as applied above (see claim 1). Oinoue discloses in figure 1 a variable attenuator and a low pass filter.

Regarding claim 6, AAPA and Oinoue disclose everything claimed as applied above (see claim 5). Oinoue discloses in figure 6 (portion 34) a low pass filter to include a resistor and a capacitor.

### ***Response to Arguments***

2. Applicant's arguments filed 3/14/05 have been fully considered but they are not persuasive.

The applicant provides specific concepts and arguments of the invention: on page 6, the applicant made reference to "... a sense of distance from a sound source ...". In respect to the claim language of the invention the specifics about the purpose or label of the "distance" filter

has not been claimed, and is interrupted (based on the broadest interpretation of the claim language) as being a filter, with no relevance to the given label, "distance". On page 7, the applicant argues that reference of Oinoue teaches an attenuator, and a LPF coupled to a signal generator and a differential amplifier. The Oinoue was provide to provide teachings of a means having a variable attenuator and a LPF functioning accordingly, therein for the purpose of indicating the filter concept claimed was well known. And, for the components to be operably coupled and/or connected and cascaded, is as well provides for a broad interpretation of components connected depending upon the others' function or performance to provide a specific function as desired.

### ***Conclusion***


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (571) 272-7518. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Laura A Grier  
Primary Examiner  
Art Unit 2644